

## AMENDMENTS TO THE CLAIMS

**Claim 1. (Currently Amended)** In a A nanochannel substance ~~in which~~wherein an oxide layer contains a surfactant micelle, comprising a nanochannel structure containing a functional molecule, wherein at the functional molecule is contained in the nanochannel, and an inner wall of the nanochannel is hydrophobic.

**Claim 2. (Currently Amended)** The nanochannel ~~structure~~substance containing a functional molecule according to claim 1, wherein the oxide layer mainly comprises silicon oxide.

**Claim 3. (Currently Amended)** The nanochannel ~~structure~~substance containing a functional molecule according to claim 1, wherein the functional molecule is a chelate molecule.

**Claim 4. (Cancelled)**

**Claim 5. (Currently Amended)** The nanochannel ~~structure~~substance containing a functional molecule according to claim [[4]] 1, wherein the nanochannel substance contains an agent for making the nanochannel hydrophobic.

**Claim 6. (Currently Amended)** The nanochannel ~~structure~~substance containing a functional molecule according to claim [[5]] 2, wherein the nanochannel substance ~~in which the oxide layer mainly comprises silicon oxide~~ contains a silane coupling agent.

**Claim 7. (Currently Amended)** A nanochannel thin film containing a functional molecule wherein the nanochannel structure is arranged in a form of a thin film on a solid substrate.

**Claim 8. (Currently Amended)** The nanochannel thin film containing a nanochannel structure containing a functional molecule according to claim 7, wherein the nanochannel is sedimented in manymultiple layers on a solid substrate in a three-dimensional manner.

**Claim 9. (Currently Amended)** A method for the manufacture of a nanochannel structuresubstance containing a functional molecule, whereincomprising:  
forming a nanochannel substance, wherein an oxide layer contains a surfactant micelle, is formed from an acidic aqueous solution of alcohol containing a surfactant, a hydrophobically treating agent, and an alkoxide compound which is able to form an oxide, and then impregnating a functional molecule is impregnated in the nanochannel substance.

**Claim 10. (Cancelled)**

**Claim 11. (Currently Amended)** The method for the manufacture of a nanochannel structuresubstance containing a functional molecule according to claim 109, wherein heating or drying is conducted on a solid substrate to form a nanochannel substance on its surface, and then impregnating a functional molecule is impregnated in the nanochannel substance.